

**REMARKS**

Claims 1-19 and 26-41 are pending in the present application. Claims 9-11, 31, 33, 37, 39 and 40 are allowed. Claims 1, 6 and 13 are amended. Claims 1, 6, 9 and 13 are independent claims.

**Example Embodiments of the Present Application**

Example embodiments of the present application recite a method to manufacture a biodegradable molded article including, in part, heating and molding the combination of the slurry or dough molding material and the coating film in the mold to mold the slurry or dough molding material through steam expansion, and at the same time soften and pressure-bond the coating film to a surface of a biodegradable expanded molded article obtained through steam expansion molding. Example non-limiting embodiments of this feature are discussed, for example, in paragraphs [0132] – [0136] and FIG. 2 of the instant specification.

As is illustrated in paragraphs [0132] – [0136] of the present application, a method to manufacture the biodegradable molded article includes attaching the coating film directly to the expanded molded article simultaneously with the steam expansion molding of the molding material. This method allows for reduction in the number of manufacturing processes, for example, the coating film can be attached in one process at a minimum. Also, since it is possible to attach by one process, it can shorten time necessary for production, thereby enhancing production efficiency of the biodegradable molded article in accordance with example embodiments.

Further, the coating film is attached at a temperature between the softening point (temperature when softening starts) of a biodegradable plastic that is a main ingredient of the coating film and less than the melting point thereof simultaneously with steam expansion molding of the molding material. Accordingly, the coating film

faces the expanded molded article during an expansion molding process under a heated and pressurized condition. Therefore, the coating film is pressurized from the outside by the mold, and from the inside by the expanded molded article during the expanding and molding process, which results in a coating film that is fused and adhered to a surface of the expanded molded article.

**Claim Rejections – 35 U.S.C. §103**

***Andersen in view of Doane***

Claims 1-6, 12-18, 26-28, 32, 34-36 and 38 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,783,126 to Andersen et al. (hereinafter “Andersen” in view of U.S. Patent No. 6,040,063 to Doane et al (hereinafter “Doane”). Applicants respectfully traverse this rejection.

The outstanding Office Action on page 4, lines 1-4, acknowledges that Anderson fails to disclose providing a coating film distinct from the molding material or placing the molding material and the coating film into a mold having a given-shaped cavity and relies on the teachings of Doane for these features of claims 1, 6 and 13.

In addition to the above-identified deficiency of Anderson, Applicants respectfully submit that neither Anderson, Doane nor the combination thereof teaches or suggests heating and molding the combination of the slurry or dough molding material and the coating film in the mold to mold the slurry or dough molding material through steam expansion, and at the same time soften and pressure-bond the coating film to a surface of a biodegradable expanded molded article obtained through steam expansion molding as recited in independent claims 1, 6 and 13. As Anderson does not provide the coating film distinct from the molding material, there is no pressure-bonding of the coating film to a surface of a biodegradable expanded molded article

through steam expansion molding as recited in claims 1, 6 and 13, but rather the mold is solely heated through the steam. In other words, column 45, lines 1-10 of Andersen only disclose heating a mold. Lines 13-20 of column 49 of Andersen describes a coating material that melts to cover the surface of a mixture while the mixture (molding material) is being heated if the coating material is added during expansion molding. Therefore, the method of Anderson is to mold a mixture through expansion and at the same time melt a coating material to form a coating film. Therefore, Applicants respectfully submit that Andersen does not teach or suggest "to mold the slurry or dough molding material through steam expansion, and at the same time soften and pressure-bond the coating film to a surface of a biodegradable expanded molded article" as recited in independent claims 1, 6 and 13.

Further, column 4, lines 21-22 and 47-48 of Doane states that the hydroxyl-functional polyester is **adherently carried** on the surface of the self-supporting structure and that the polyester **self-adheres** to the surface through brushing, dipping, spraying, compression molding, coextruding and hot roll laminating, none of which includes a steam expansion molding method as recited in claims 1, 6 and 13. The Examiner asserts that the description in Doane relating to the compression molding of coating material suggests that Doane is capable of providing a coating film and molding material in a mold during a molding process. However, the disclosure in Doane is made in relation to the coating of the surface of a self-supporting structure that is a molded article molded in advance by the method described in col. 3, line 67 to col. 4, line 19. The disclosure of Doane does not suggest combining the slurry or dough molding material and the coating film in the mold. Therefore, Applicants submit that Doane does not teach or suggest "placing the slurry or dough molding material and the coating film into a mold having a given-shaped cavity to obtain a

combination of the slurry or dough molding material and the coating film” as recited in independent claims 1, 6 and 13.

For all of the above reasons, neither Anderson, Doane nor the combination thereof renders obvious claims 1, 6 and 13.

Claims 2-5, 12, 14-18, 26-28, 32, 34-36 and 38, dependent on independent claims 1, 6 and 13, are patentable for the reasons stated above as well as for their own merits.

The Applicants, therefore, respectfully request that the rejection to Claims 1-6, 12-18, 26-28, 32, 34-36 and 38 under 35 U.S.C. § 103(a) be withdrawn.

***Andersen in view of Doane and Okazaki***

Claims 19 and 41 are rejected under 35 U.S.C. §103(a) as being unpatentable over Andersen in view of Doane and further in view of EP 0679509 to Okazaki et al. (hereinafter “Okazaki”). Applicants respectfully traverse this rejection.

Even assuming *arguendo* that Doane and Okazaki could be combined with Andersen (which Applicants do not admit), the Examiner has failed to show how Doane and Okazaki remedy the deficiencies of Andersen with respect to independent claims 1 and 6. Thus, claims 19 and 41 are patentable over Andersen and Doane and Okazaki for the reasons set forth above with respect to independent claims 1 and 6.

The Applicants, therefore, respectfully request that the rejection to Claims 19 and 41 under 35 U.S.C. § 103(a) be withdrawn.

**CONCLUSION**

Accordingly, in view of the above amendments and remarks, reconsideration of the objections and rejections of claims 1-8, 12-19, 26-30, 32, 34-36, 38, 41 is respectfully requested, and allowance of each of claims 1-19 and 26-41 in connection with the present application is earnestly solicited.

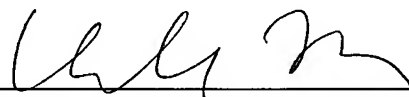
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. §1.17; particularly, extension of time fees.

Respectfully submitted,

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